

WHAT IS CLAIMED IS:

1. A method of quantifying the integrity of connections within individual circuit cells of an integrated circuit device, the method comprising:
  - 5 placing the integrated circuit device in a vacuum chamber;
  - bombarding a selected site on the integrated circuit with an electron or ion beam;
  - detecting secondary electron or ion reflection from the selected site to acquire an image of the selected site; and
  - 10 correlating the acquired image with a reference image to generate a potential value associated with the selected site.